• HEALTH •

EDITED BY

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CONTENTS OF No. 33.

	PAGE
Notes by the Way	113
Original Essays :—	
The Sacredness of Burial. By S. Phillips Day	114
How to Become Thin or Fat. V. By a Surgeon to Several Metropolitan Hospitals	116
Cottage Hospitals : Their Construction. III. By G. A. Gibson, M.D., D.Sc., F.R.C.P.E.	118
Personal Health :—	
On British Male Costume in the Nineteenth Century. II. By Edward Houghton, B.A., M.D.	118
The Family Circle :—	
Shortsightedness : Its Causes and Prevention. By Henry Power, F.R.C.S., &c.	119
Healthy Houses :—	
Health Helps for the People	120
Recreation and Health :—	
Physical Exercise. IV. Football. By C. W. Cathcart, M.B., F.R.C.S.	121
Jottings from the Journals	121
Our Bookshelf	122
Sanitary Appliances	123
Our Letter-Box	124

Notes by the Way

"Health is the foundation of all our physical happiness."—*Herder.*

THE Christmas Lectures on Popular Anatomy and Physiology, which are to be delivered in Princes' Hall, Piccadilly, London, W., at Christmas, by Dr. Andrew Wilson, Editor of HEALTH, have been finally arranged as follows :—Lecture first, on Thursday evening, Dec. 27, will deal with "The Bony Framework—the Skeleton." Lecture second, on Monday evening, Dec. 31, will deal with the subject "How we Move—Joints and Muscles." At the third lecture, on Wednesday night, Jan. 2, 1884, "The Heart and its Work in the Circulation of the Blood" will be duly treated; while the fourth lecture, on Saturday, Jan. 5, 1884, will be devoted to an exposition of "Nerves, Brain, and their Work." This programme, in respect of its varied nature, has been suggested as likely to prove interesting to the public. All the lectures will be illustrated by diagrams, &c., exhibited by aid of the lime-light, and a full and attractive method of illustration will thus be secured. The lectures will begin each evening at eight o'clock, and terminate about 9.20.

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DETAILED syllabuses of the lectures will be ready in a few days, and these syllabuses, together with tickets and every information regarding the lectures, can be had from Messrs. Chappell & Co., 50, New Bond-street, S.W., and 14, Poultry, E.C.; Austin's Ticket Office, 28, Piccadilly; and the usual Agents. All applications of a business nature are to be addressed to Mr. John Flack, 74, Great Queen-street, Lincoln's-Inn Fields, London, W.C.

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IT is intended that these lectures should form the nucleus of what may become an important movement in connection with the diffusion of popular scientific knowledge in the metropolis and elsewhere. In respect of the facts that the art of living well, and the practice of health-laws can be truly founded only on a knowledge of the normal structure and functions of the living frame, it is hoped that Dr. Wilson's lectures may thus aid in diffusing that information which forms the basis of health-science. The lectures, it may be added, will be adapted for both sexes, and for old and young alike, and will be delivered after the fashion of the "Combe Lectures on Physiology," which have attracted large audiences throughout Scotland.

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THE conference on "School Life in Relation to Health," which the "National Health Society" propose to hold, has been postponed from December until the spring. This change is rendered necessary by the fact that at the close of the year most persons who are interested in this question leave school and their ordinary labours for the holiday season. The delay in holding the conference is, therefore, a wise one, and should secure in the spring a large attendance of parents, guardians, and the teaching profession.

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SOME fifteen years ago or so, a certain Zouave, named "Jacob," created a stir in Paris by his assumed ability to work cures of marvellous kind. Amongst the poorer classes Jacob was accounted a marvellous person, and in respect of the fame which attached to his healing powers the Charlatan-Zouave appeared to be a close imitator of the famous Mesmer, who gave his name to the particular "ism" which still occasionally appears on the platforms of our entertainment-halls. Jacob has, however, like the proverbial coin, "turned up" again—this time in a new character. It seems that he practised bone-setting (in anything but a miraculous fashion) amongst his cures; and he was recently indicted in Paris on a charge of practising medicine and surgery without a licence, and of having, in the capacity of quack, broken a lady's arm. Jacob's defence was that the arm had "stiffened" (or, in surgical language, had become "anchylosed"), and that his treatment had been directed to breaking down the adhesions of the bones, and to thus freeing the arm from its deformity.

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LIKE most quacks, and especially like the "religious" quacks of our own day, Jacob is a firm believer in his supernatural endowments. He alleged in court that he did not know how he performed his cures, and that he was gifted with "a magnetic fluid," which enabled him to work wonders. He was sure, he added, that "God had endowed him with the faculty of curing diseases;" and, franker than many of the quack fraternity, disclaimed all knowledge of either medicine or surgery. But the case of Jacob presents us with another example of the extent of human credulity. The lady who indicted Jacob was stated to have formed one of eighty-five patients who stood in a row in his house. He merely "touched her shoulder" gently, remarked that her arm was broken, and that she should consult a doctor. The gentle manipulation of the arm is, however, alleged to have been a severe twist; and the Paris courts have now to decide upon the nature of Jacob's practices, and the question of his criminal or other responsibility in the matter.

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SANITARIANS are never weary of warning the public that milk, of all fluids, is singularly liable to absorb deleterious gases, &c., and to become a vehicle for the conveyance of disease into our homes and persons. In a recent number of the *Lancet* attention was directed to the dangers of milk-conveyance in towns. It was urged that the ordinary practice of selling milk, by its carriage from door to door by milk-women, is fraught with danger. The milk-carriers are not over cleanly, it was said, and the dipping of the hands into the milk in the act of ladling out the household supply was pointed out as a singularly obnoxious practice. The milk-cans also are often left exposed in the street, and the fluid thus becomes liable to contamination from various sources.

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SOME correspondence has been elicited by the following remarks :—The heavy burdens carried by milkwomen are decidedly injurious to their health; and there appears to be little or no supervision of the *employés* of the dairies of large towns in the matter of their cleanliness. In

some towns we have seen the milk drawn off from a barrel furnished with a tap, and conveyed in a neat cart. This is the only safe fashion of milk-conveyance; and one which, above all, renders the likelihood of adulteration small. When one reads of a milkwoman giving two dirty-looking tramps a drink of the beverage she was conveying on her rounds from the milk-can itself, it seems high time to protest against such laxity in the case of milk being possible. There is a growing need for the strict supervision of dairies as each recurring epidemic of typhoid fever shows, and it would be well if the supervision in question (when it is enforced) should be made to extend to the milk-carriers and their ways.

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THE recent cry of better houses for the working classes has attracted, in London especially, a large share of attention. For our own part, we are heartily glad to see and hear of interest being exhibited in the dwellings and mode of life of the poor. But we are tempted to express surprise that so much is being made of the condition of the slums in cities, as if, indeed, the squalor and horrors of the poor were things of new or recent discovery. If the public are only now beginning to waken up to the knowledge that human lives may be lived amongst conditions of the direst misery, "better late than never," must be the Sanitarians' remark. There is nothing at all new in the latest "revelations," which, however, are spoken of, by both press and public, as if they had discovered a *terra incognita* in modern life. We make bold to say there is not a medical student in dispensary practice, and not a city missionary of even a few months' experience, who could not have supplied the public with a multitude of details, regarding "how the poor live," quite as repulsive and as realistic as those which have formed the topic of recent remark. Enterprising journalists and artists may present something new to the public when they descend into the courts and alleys; but the condition of the poor is no new thing to doctors and missionaries, who have long stood aghast at the sight of evils all unknown to the world around. We shall wait with interest to see whether, after all the "cry," there is to be some tangible result in the shape of health-reform amongst the denizens of the slums.

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HEALTH-LECTURES, and all other forms of instruction, however popular they may be made, can never teach the abject poor lessons of sanitary reform. The conditions against which the reformer has to contend in the slums, are terribly strong and powerful in their resistance to improvement. Inherited poverty, disease, and crime tell with cumulative force in the production of ill-health and its attendant evils. Until there can be organised a "health mission," which, armed to the teeth against disease and ignorance, will descend into the alleys, prepared by a strong backing of wealth, to give better food, purer air, and healthier surroundings to the sweltering masses, we must simply be forced to content ourselves with bewailing and enduring what cannot be cured. The whole question is a national one, and will only be solved when it is made the subject of national interest and of Government supervision.

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AN interesting return has recently been made of the increase of insanity in France. In 1882, 13,434 persons were admitted to asylums, and of these 10,184 were new cases; the total number under treatment being 58,760; 27,000 of these being men, and the remainder women. The number of cases due to alcoholism is said to become larger each year. The average duration of treatment for men in France is 276 days; and for women, 295 days.

Original Essays

"Life is not to live, but to be well."—*Martial.*

THE SACREDNESS OF BURIAL.

By S. PHILLIPS DAY.

THE utterance from the Book of Genesis with reference to the origin and physical end of man has, for four thousand years, been interpreted to be a divine oracle enjoining the burial of the dead. "Holy men of old," observes the Bishop of Lincoln, "fell asleep in death, and were laid in the bosom of their mother earth." Indeed, as the same high authority avers, "Such was the anxious care of faithful men of old for the burial of the body, that not a single instance can be cited from the Old Testament, where any other mode of disposing of the body of a holy man after death is recorded, than that of burial." To be unburied is described in Holy Writ (1 Kings, xiv. 11), as one of the most ignominious punishments. It is somewhat singular that the first commercial transaction recorded in the Scriptures is the purchase of a burying-place. On this matter, an eminent writer remarks: "The minute and particular manner in which the circumstances are narrated is noteworthy, and those who hold that the Book of Genesis consists of various early inspired documents, collected by Moses, may suppose that this detailed account is a kind of legal record of the purchase, an opinion which the concluding passage, specifying the contents of the field, and twice stating the ownership of Abraham, seems to confirm."

On the testimony of Dr. Eadie, the ordinary mode of burial among the Jews was in this wise:—The body of a deceased person having been washed and laid out, was wrapped in folds of linen cloth, and the head bound with a napkin. It was then placed on a bier, and finally borne to the grave. Hence the restored earth-to-earth sepulture, introduced at Woking, owing to Mr. Seymour Haden's advocacy in the *Times*, is of very early origin, and no new-fangled system, as some uninformed persons may suppose. Professor Ewald, in his "Antiquities of Israel," states that although the individual in whose dwelling any one died found himself and his household rendered unclean, nevertheless that the undefinable shrinking from a corpse was not carried to such an extent in Israel as it was among other ancient and, in part, highly-civilised nations—(the Zarathustrians, for example)—where it was the custom either to expose the dead on high places to be consumed by vultures, or else to burn them, as was done at certain periods among the Greeks and Romans. The burial-places of the Jews were both public and private, and were usually selected in gardens outside of cities. The law decreed that whoever touched a human bone or a grave must submit to the onerous purification mentioned in Numbers xix., 16. This, no doubt, induced the Jews to have burial-places as far removed as possible from human habitations and from temples. Hence, high ground was preferred for mortuary purposes, although deep caverns were occasionally employed. In order to make the ground safe to tread upon, lime was brought into requisition. After the lapse of time sanitation appears to have been disregarded. Kings began to erect tombs for themselves within the Temple of Solomon—an act especially censured by the prophet Ezekial; while the magnificence and scrupulous purity of the tombs of the opulent was in striking contrast to the rude and squalid graves of the common people. "The valley of corpses" to the south of Jerusalem became a

scandal and a menace to the health of the citizens, equally as repugnant to the senses as are our own pestiferous London cemeteries. Notwithstanding this departure from ancient custom, still to be unburied, as I have already premised, was regarded as disgraceful by the Israelitish people. The wretched doom of Jezebel and the dolorous fate of one of the Hebrew Kings—"he shall be buried with the burial of an ass, and cast forth beyond the gates of Jerusalem"—pregnantly illustrate the veneration in which inhumation was held by the Jewish mind.

Caves in the sides of mountains were sometimes used for interment. Such was the sort of tomb that Shebna had prepared for his last resting-place. Kings and prophets were buried in their respective cities, occasionally even in their own houses. Rebekah's nurse, we read, "was buried beneath Beth-el, under an oak." In the "Talmud" we are informed that when Joseph died his body was embalmed, and subsequently laid in the ground near the banks of the Nile. In Egypt and Palestine the early practice of embalming the dead was followed by the Christian Church. It had originated in a belief which Christians considered quite in harmony with their own views, and the practice having been found in existence was not discarded. In primitive times, as Professor Ewald shows, treating of sanctity in Nature, the physical universe made the strongest impressions on men. To them Nature "was not merely a friendly being, but also, so far as their knowledge of her was little trustworthy, far more a hostile living being, dark and terrible, which they must take heed not to disturb and insult, and whose evil actions where hard to avert. The more direct, and therefore the more powerful, were these obscure impressions which man received from Nature, the more troubled became his dread of doing anything which seemed antagonistic to her, and the more diligent were his efforts to remove to a distance from himself any repulsive object which he might anywhere happen to meet with. However, the whole of Nature in all its infinite details could not be always making such impressions on man; when, therefore, he thought he had no need to fear, he soon acted with all the greater recklessness and cruelty, even towards the human body itself."

Reverence for the dead and the duties therefrom arising, formed an important part of Greek and Roman religion. The tragedy of the "Antigone" of Sophocles is one pregnant illustration of this fact. The classic poets exhibit a deep impression of the solemn duties due to the dead. Indeed, on the testimony of Prebendary Browne ("Hist. of Classic Literature"), it was this very feeling which probably induced Homer in his "Iliad," and Sophocles in his "Ajax," to prolong their respective poems beyond the limits otherwise naturally appropriate to the true catastrophe. Virgil (Æneis, book iv.) causes Queen Dido to utter as not the least formidable part of her curse on the Trojan chief, that her enemy should

> Fall, untimely, by some hostile hand,
> And lie unburied on the barren sand;

while, when the Sibyl attends Æneas to Hell, there are brought before his startled vision:—

> The boatman-Charon; those, the buried host,
> He ferries over to the farther coast;
> Nor dares his transport vessel cross the waves
> With such whose bones are not composed in graves.

In Rome, land used for interment became, *ipso facto*, invested with a religious character, which extended not alone to the area of the cemetery or *quietorum*, but to the *hypogæa* or subterranean chambers connected therewith, perhaps also to the gardens, orchards, and other appurtenances belonging to it. Under the Roman law, the violation of a tomb was visited with the severest penalties. On the testimony of Paulus, those convicted of removing a body, or digging up the bones, were, if persons of the lowest rank, to suffer capital punishment; if of higher condition, to be banished to an island or condemned to the mines. And, singular to say, this privilege was not denied those who, as martyrs, had forfeited their lives to the law. There was nothing in the social or religious position of the first Christians in Rome and elsewhere to interfere with their liberty in the mode of disposing of their dead. No general edict was directed against a Christian cemetery (*cœmeterium*, or "sleeping-place"). Even in the year of our Lord 257, when the Emperor Valerian condemned religious meetings in the sacred precincts of the depositaries of the dead, he is absolutely silent as to any prohibition of burial. Hence, cemeteries became expressly recognised by the civil power. Pope Zephyrinus appointed Callistus as the overseer of the cemetery on the Appian Way which still bears his name, and who had received the ground from some distinguished citizen. The institution of cemeteries was deemed expedient by the Church, which inculcated the duty of the richer members providing for the reverent interment of the poor. It is stated that St. Ambrose sanctioned the sale of the sacred vessels by the Christian community rather than that the dead should want decent burial. The early Roman pontiffs were wont to keep "stations" in some of the cemeterial buildings, so that these cemeteries were regarded by Christians in the light of sanctuaries, wherein bishops would hold their synods, administer the sacraments, and preach the Gospel.

The practice of the Jews in not suffering the dead to repose nigh to their temples presents a striking contrast to that of Christians, who buried the departed in churches and in grounds adjoining. In the case of Levitical cities, the distance at which the dead should be kept apart from the living was 2,000 cubits. No body was suffered to be buried within the city walls, save in Jerusalem, where this privilege was reserved for the royal family of David and a few exalted personages. The public cemeteries for the accommodation of the inhabitants were situated without the capital, in addition to a special repository for strangers. The Emperor Theodosius forbade burial within a church or even within the limits of a town. When the Donatists first buried their martyrs in churches, the bodies were afterwards removed, such sepulture having been declared irregular and unlawful. The Civil Canon law was equally stringent. Although kings and other potentates had the privilege afforded them of burial in the churchyard, it was not until the commencement of the sixth century that the people seem to be admitted to the like honour. By the ecclesiastical laws of England no one can be buried within a church without the licence of the incumbent. Herodotus points out how Pisistrates purified Delos, by removing all the bodies which had been buried within sight of the Temple, such an act being enjoined by the Oracle. It would have been well had a similar sanitary spirit prevailed among ourselves in the past. It would at least have saved our churches and cities from pollution, and not have marred the sacredness of sepulture.

THE hair of a girl in an Eastern factory was caught in machinery, torn off her head, and scattered in bits. But she did not mind it at all, kept right on at her work, and simply remarked that "it only cost $4 anyhow." This is the advantage of art over nature.

HOW TO BECOME THIN OR FAT.

By a Surgeon to Several Metropolitan Hospitals.

FIFTH PAPER.

The *causes* of this affection are manifold, and as it may be taken for granted that almost any well-developed person taking more nourishment than is necessary to maintain his or her body in a normal condition will most likely become fat, this occurrence would be an instance of acquired obesity. But certain individuals are, undoubtedly, naturally more prone to form fat than others, and the predisposing circumtances are, a family tendency, bodily and mental laziness, and a contented mind, acting on an hereditary disposition to fatness. The saying, "Laugh and grow fat," is well founded, for it is well known that anxiety and worry, if at all prolonged, are amongst the greatest enemies of a plump figure. A wrong impression is abroad as regards the mental capacities of fat folk, hence the offensive epithet, "Fat-head." I fear me that Shakespeare is a good deal to blame in this matter, for he says :—

> Fat paunches make lean pates, and dainty bits
> Make rich the ribs, but banker out the wits.

But it is better, I think all will agree, to be fairly plump and jolly than thin and miserable. Rabelais was clearly of this opinion :—

> Mieulx est de ris que de larmes escripes,
> Pour ce qui rire est le propre de l'homme.

Women of the better classes have no experience of what Darwin has justly called the "struggle for existence," so that taking life at ease and enjoying the good things of this world, they are very prone to put on too much fat, and frequently, if this fatty malady be not checked, graver results are apt to follow. Men of all ranks are in the habit of taking, in one shape or the other, more alcohol than is good for them, and were it not that their physical work and mental anxiety tend very much to check the formation and deposition of fat, a part of the alcohol taken in would be converted into it. So that the old writer had some reason when he said,—

> By drinking ale or Beere grosse humours grow,
> Strength is augmented, bloud and flesh also
> Encreaseth dayly . . . .

but to insure augmentation of flesh and blood, sound diet and regular exercise are necessary. As familiar instances of well-grown and physically strong men, brewer's draymen may be indicated; but they usually take too much beer to render them constitutionally strong.

Rest and confinement are important factors in the fattening process, as is well exemplified in the fattening of poultry and in producing the fatty livers of Strasbourg geese; and it has been repeatedly observed that, in confinement, prisoners have put on a good deal of fat. Want of exercise, fresh air, and sunlight also conduce to this state; and Dr. Chambers relates the case of a man who became fat while working in the cellars of a brewery, but got thin when he served upstairs in the shop. I would suggest that in the cellar he inhaled the brewing odour, as well as probably helped himself too freely when unobserved. Poorness of blood also tends to render its possessor prone to put on fat, as most medical men must be familiar with cases of severe loss of blood, or of people whose blood was in a poor condition after a bad illness, who have rapidly become stout; but in some of these cases I think there can be little doubt that more nourishment than necessary was taken. It should also be borne in mind that the convalescence in such cases would necessitate rest in bed, and thus lack of exercise is an additional factor in these cases.

A cold moist climate is said to predispose to this affection, but I am inclined to think that there are more fat people in hot climates, and if this be the fact, as I believe, I should attribute it to the small amount of exercise taken on account of the heat, and to the diet being more than is necessary for the mere bodily wants. Constitutional predisposition and a congenital condition or hereditary tendency are undoubted causes, and many cases are recorded in which the parents and grandparents were fat, and I have met with such instances. Chambers says that the affection is hereditary in 55 per cent of the cases, but Bouchard found it in only 33 per cent. of the cases he records. Certain races of animals, especially pigs, and, to a large extent, horses also, have, through a process of selection, after having been fed and brought up in a particular way, shown a great aptitude to form fat, and have transmitted it to their offspring. The latter often rapidly put on fat in all parts of their bodies, so that even the muscles and glandular organs become infiltrated with it. Human infants have been born with this species of fatty infiltration; and occasionally the subcutaneous layer of fat is enormous in new-born children. I have recently had occasion to operate for club-foot on such a case coming from the north of Scotland; and several years ago I had a drawing taken of an enormous baby, five days old, whose subcutaneous fat was $3\frac{1}{2}$ inches in depth over the abdomen. The parents of this latter infant were big, but not fat people, and, being labourers, it may be that the tendency to the formation of fat was kept under by their hard work and low diet; the transmitted tendency expressed itself, however, in their baby. This and other well-known instances put beyond doubt the fact of the inheritance of this affection, and though the condition is rarely congenital, the tendency often becomes manifest at and after puberty. Certain families and races, especially the Kaffirs and South Sea Islanders, exhibit a great disposition to deposit fat, as do also the Zulus and some other African tribes.

The *age* at which obesity appears to be most common is, in my experience from 14 to 35, but many cases do not develop until middle age.

COTTAGE HOSPITALS.

THEIR CONSTRUCTION (*continued*).

By G. A. Gibson, M.D., D.Sc., F.R.C.P.E.

THIRD PAPER.

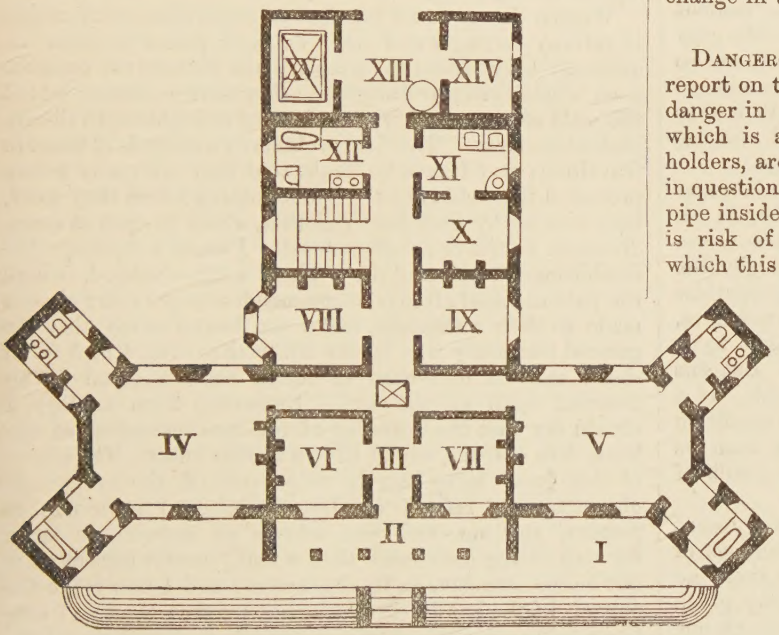
In our next paper, we shall touch upon the treatment of the walls inside the hospital when discussing the furnishing of it, and shall leave the question of cost to be taken up under the head of management. In the meantime, we shall suggest an ideal or typical cottage hospital, the plan of which is, in great part, based on one of those recommended by Dr. Swete. In doing this, we do not take it upon ourselves to suggest any architectural design for the elevation, but simply give a ground-plan, leaving the style to be chosen with deference to the prevailing form of buildings in the district.

As already said, we are strongly in favour of the pavilion system even in the erection of cottage hospitals, and the plan, therefore, is drawn with a central block, from which spring two lateral wings. The whole hospital is raised above the level of the ground to give an open ventilated space underneath the flooring, and this allows of the for-

mation of a terrace, I, in front of the hospital, with a short flight of steps down to the garden. From the terrace the building is entered through a little verandah, II, which leads into a passage running to the back of the hospital, where it opens into a small court. This passage, III, is lighted by means of a skylight at the point where it is joined by the two side passages which give access to the large wards.

The two pavilion wards, IV and V, the former of which is intended for men, and the latter for women and children, are of similar size, 15 ft. by 20 ft., and have each three beds. They have open roofs of varnished timber, which considerably increases the cubic space. Each has an open fireplace and four windows, two in each of the longer sides, and also a Tobin's and a Tait's ventilator. At its fire end each ward has a bath-room in one corner and a watercloset in the other; both of these being in offshoots from the ward, and carefully shut off from it by means of a passage provided with two opposite windows to give perfect cross-ventilation.

In the main block between these two wards, are two rooms of equal dimensions, 10 ft. by 10 ft., VI being a day room for patients, and VII the nurse's room. Behind the cross passages we have an operation room, VIII, 10 ft. square, but larger on account of a bay window. This room may be used also as the surgery. Beside it is a private ward, IX, also 10 ft. square, for cases of accident, operation, or other special character. Beyond it is the kitchen, X, which is 10 ft. by 8 ft., and has a door



leading into the laundry, XI. This in size is 10 ft. by 7½ ft., and fitted up with a copper and large fixed tubs. Opposite the laundry, and of equal size, is a bath-room, XII, with lavatory and water-closet. Outside of the main wall of the hospital is a court XIII, with gateway large enough to admit vehicles, and in this should stand a large waterbutt to collect and store rain-water. Placed as it is in the plan, it may have a pipe into the laundry to supply the washing-tubs. On one side of the court is a store-room, XIV, and on the other side the mortuary, XV, which is lighted by a skylight. These are both of the same dimensions, 10 ft. by 7½ ft.

If necessary, the central block may have a second storey. The intention of our plan is to have apartments above the operation-room, special ward and kitchen lighted by dormer windows, without any upward extension of the walls. If more accommodation is required, additional rooms may be provided by similar treatment of the roof-space above the front rooms, VI, and VII, ; but we are of opinion that the three apartments which we have already indicated are amply sufficient to give bed-rooms for servants and presses for linen enough for a hospital of six or seven beds.

Before closing this brief sketch of the construction of a Cottage Hospital, it may be well to touch upon the changes required when a cottage already in existence is to be converted into an hospital. These will vary with the state of the building. It is possible that the only closet on the premises may be a cess-pit in the garden, and that there may be the further adornment of an ash-heap or dung-hill. All such must be removed. In their stead proper and sanitary appliances, such as we have mentioned above, must be fitted up. The water supply and ventilation must be put on a good footing. The flooring of the ground-floor should be taken up, and sufficient soil removed to leave an open space beneath the flooring when replaced, and this space should be ventilated. The walls may be in a good condition, but if the plaster is filthy, it will be well to chip it all away; apply quick-lime freely to the chipped surfaces, and afterwards re-plaster the walls.

Many cottages notoriously unhealthy have been transformed by such efficient measures as are dimly foreshadowed in the preceding paragraph into most healthy Cottage Hospitals. Many more may undergo the same change in the future.

Dangerous Soil-pipes. — Mr. Turner, in his annual report on the Hertford rural sanitary district, points out a danger in connection with the soil-pipes of water-closets which is as yet but little appreciated by either house-holders, architects, or builders. The custom in the district in question—as, indeed, almost everywhere—is to fix the soil-pipe inside instead of outside the building, and the result is risk of injury to health. One of the methods under which this may arise is indicated in the report. Such pipes are almost invariably constructed of lead, and the moisture condensing on the inside of the pipes, in contact with the metallic impurities contained in the lead, sets up galvanic action, which results in the destruction of the lead. Perforation of such a pipe has taken place within a twelve-month, and many pipes have come to be so worm-eaten and destroyed as to admit large quantities of foul air into houses. Even where a through current of air is ensured, soil-pipes must necessarily be foul; and if it be an objection to their being placed outside a house, that they look unsightly, it is easy enough to let them into a chase, or otherwise to hide them. Inside houses they have often led to such diseases as enteric fever and diphtheria; outside they are harmless.

"The Money Question Considered." E. W. Allen, 4, Ave Maria Lane, E.C. The money question in connection with the State purchase of Railways. "A small pamphlet full of facts." By post, 1½d.—[Advt.]

Barnes's Impermeable Opium Poultice, an effective and perfectly safe application for relief in neuralgia, gout, rheumatism, painful swellings, and lumbago. Prices by post 1s. 3d. and 2s. 5d. 1 and 2, Trevor-terrace, Knightsbridge, S.W.—[Advt.]

The "Spécialité" Lime Juice, for family daily use throughout the year, has not the usual musty flavour; will not turn mouldy; may be obtained of Chemists and Grocers.—Feltoe & Sons, Albemarle-street, London, W.—[Advt.]

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

ON BRITISH MALE COSTUME IN THE NINETEENTH CENTURY.

By Edward Houghton, B.A., M.D., &c.

(IN TWO PARTS—PART SECOND.)

Possibly this essay may be in some measure traceable to personal considerations. This is sure to be said of any reformer, and it may be as well "to take the wind out of the sails" of malice by at once admitting the crime. I have been often tried by certain difficulties in connection with that marvel of malignant ingenuity, the modern shirt. Every male person, not of tender years, must have experienced his helpless condition when, after putting on a cold shirt, and breaking his studs and finger-nails in closing the front part (duly stiffened with starch and borax), and having put on several other cold garments over that, he discovers, to his horror, that there is no button to the neck-band of the shirt to which to attach that instrument of torture, "a British collar," to whose yoke he has been accustomed to bow his neck.

I may be permitted to ask, "What is the unfortunate wight to do, on a cold January evening, when not even a pin is within reach, and he is duly expected to present himself at some hospitable neighbour's house in the only guise permitted at an evening party? Few men are so forlorn as to be altogether bereft of female help on such occasions, but otherwise there is nothing for it but to further chill the body by entirely undressing and running the risk of bronchitis or inflammation of the lungs.

We are all familiar with the picture of the Irish labourer who has a certain garment on his knees, and who, in his vain endeavours to thread a needle, is made by the clever artist to illustrate the "onconvaynience" of single life. It is said that women refuse on principle to sympathise with unlucky bachelors under these trying circumstances, alleging that "if they are not married, they ought to be so; and have no one to blame but themselves." But this is a very heartless way of disposing of the matter. If a man cannot get the woman he loves, is his single condition to be treated as a crime? or why should any man be compelled to marry if he has fears as to the result of entering into that state?

But, it may be said, can we not get further at present than a mere perception of the sins and shortcomings of British costume in the nineteenth century? Are there no general principles to be had in view, which may guide us in future attempts at reform; so as to prevent our losing heart at the apparent impossibility of the task which lies before us? Here we are on safe ground. Here no idiot can jeer at us in advance, and presume to "answer a matter before he heareth it," which, as Solomon says, would be "folly and shame unto him." It is not so very difficult to lay down general principles which ought to prevail in respect of national costume; nor, on the other hand, need any inventor be chagrined if his ideas, however excellent, are not immediately taken up, simply because the element of nationality will assert itself. But I am a man before I am a Briton; and my bodily frame, as that of a human being, deserves consideration even more than does the good opinion of my unduly conservative fellow countrymen.

If the French peasant is able to afford a costume well adapted for labour, and yet capable of being washed as often as necessary, why may not an English workman (whose average income is much greater) do the same? The mountains which are sure to be made out of molehills when reform is spoken of, may be made to remove by those whose faith is sufficient, and to plant themselves for ever in the depths of the sea. After all, if the worst comes to the worst, the blouse or the Garibaldi jacket are far from unbecoming garments for a man, especially if confined at the waist by a neat belt; and they do not need elaborate measurements or fitting; and can, consequently, be bought ready-made. This is no small matter with busy men. Why must a garment for a gentleman require as much measuring as a lady's dress, unless the wearer is prepared to appear as a regular "Guy"? It ought to be possible to go into a shop, and buy a costume of any colour for a score or two of shillings, which would fit any man, with the help of a little domestic trimming and fixing-up. The result would be that men would look just as well, and feel much more comfortable in their clothes than at present, while the time and money wasted on elaborate tailoring would be absolutely saved. Not that I have anything to say against tailors, who are a highly respectable body of men; but their number must be greatly diminished by any real reform; whilst ready-made clothing would be the rule, instead of being the exception, as it is at present. It is upon the underclothing that we must depend for real protection against draughts, &c.

Women do not suffer one half as much from colds caught in railway carriages and other exposed places as men do, although they almost invariably plant themselves opposite open windows in travelling when they have a chance; whilst the male occupants view their love of draughts with ill-concealed uneasiness. This I have observed hundreds of times in travelling; and I have no doubt that they are really better protected from chills by the underclothing which they wear, than men are by their heavy clothes, which lie open in every direction to the treacherous blast. I know a hydropathic establishment, situated in a bleak neighbourhood, where the patients used all to be recommended to get short sleeves made to their waistcoats, and I am bound to say that the general testimony was to the effect that even 4 or 5 in. of sleeve made a difference of actual warmth equal to an overcoat worn all the day. Reasoning from analogy, I should say that the fastening of full knickerbockers at the knee, *à la* Rubens, would have a similar effect. The object of this essay being merely to get rid of the systematic obstruction to reform which now exists, I have not, at present, any cut-and-dry scheme of costume to bring forward (being convinced that a really useful reform must not be too obtrusive in its character); and I now leave the matter in the hands of others, hoping that they will continue to "keep the ball rolling" until some genuine reform is effected.

Oysters in America.—The consumption of oysters in New York is estimated to cost 5,000,000 dols. annually. At Boston the annual expenditure under this item is set down at 1,700,000 dols.; and at Philadelphia at 1,500,000 dols.

"Have you given electricity a trial for your complaint, madam?" asked the minister as he took tea with the old lady. "Electricity?" said she. "Well, yes, I recon I has. I was struck by lightning last summer and hove out of the window, but it diddent seem to do me no sort of good."

The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

SHORT-SIGHTEDNESS: ITS CAUSES AND PREVENTION.

By Henry Power, M.B. Lond., F.R.C.S. Eng.

(From the *Lancet.*)

I may just mention the arrangements which the last and one of the best informed writers on this subject regards as most serviceable for school work (Reuss). In the first place the distance between the edge of the desk and the front edge of his seat must be 0, or they must even somewhat overlap each other; secondly, the difference in height between the bench and the desk must be as great as the distance of the elbow from the bench when the arm is hanging freely down: = 5-7 centimètres;* thirdly, every school bench must have a proper back, which must not be the back of the desk behind. There is much difference of opinion amongst high authorities as to the best form of back, some preferring a high back, others a T-back of moderate height, and others again a low back. The high back supports the lower part of the dorsal region of the spine, and thus relieves the lumbar (or loins) region of part of the superincumbent weight. The moderately high T-back supports the sacrum or the lower lumbar vertebræ, fixes the pelvis, and renders the sitting position one of rest. The low back fits into the curvature of the loins, and fulfils the purposes of both the other forms partially. It is the form which is generally regarded as being the best. It is on the whole best that each seat should have its own back, since with continuous backs, overcrowding, which should be religiously avoided, may occur. The back should be curved to suit the form of the body, and be firmly and solidly constructed.

The bench on which the scholar sits should be hollowed out continuously with the back, and be either flat or a little raised in front. Its breadth should be, in accordance with the size of the boy, from 23 to 34 centimètres. The height of the bench should be such that the knee is bent at right angles to the well-supported and resting thigh, and that the soles of the feet may be planted flat on the ground or on a foot-board. The table-top must be broad enough to support books and papers, and to allow them to be pushed forward so far that they do not interfere with writing. Thirty-two to forty centimètres are the right dimensions. The desk-top must, moreover, form an inclined plane; nothing conduces so much to stooping as a flat desk. The limit is that the ink should not flow back in the pen, but this is much too great, since books and papers would slide off unless prevented by a raised edge at the bottom of the desk, and such edges are objectionable, since they hurt the arm in writing. An inclination of 2° in 12′ is about right. For reading, the desk inclination may be as steep as possible, but this is not easy to manage in school desks. The height of the desk is from a medical point of view secondarily determined as soon as the height of the bench and the difference between the bench and the desk is determined. If the feet are to rest on the ground, the height of the desk will have to be different, according to the size of the boy, which may be inconvenient to the teacher. The difficulty may be overcome by having a movable latticework for the feet to rest on. The desk lastly should be sufficiently broad, 50 to 60 centimètres, for each boy. Arrangements require to be made to allow of standing as well as sitting.

An immense amount of attention has lately been directed to various points in printing which have been shown to exert an influence on the vision. First, in regard to the letters themselves. No one can compare the Gothic with the modern Roman letters without being struck with the superior legibility of the Roman type. The flourishes of some of the letters, the close similarity to one another of others, as of the "h" and "k," the "f" and "s," the "u" and the "n," all render a closer examination of the print requisite in the one case than in the other. Javal, to whom we are indebted for much interesting observation on this subject, says that the increased number of myopes (or short-sighted persons) that has, he declares, been noticed in Elsäss since the annexation consequent on the war of 1870 is due to the introduction of German type and writing into that province. Weber considers that the absence of fine upstrokes in the Roman form of type is a distinct advantage, and, further, that the arched, instead of the pointed, shape of the letters in the Roman type renders them more easy to read, and therefore require less earnest fixation. Weber maintains that a child of eight years of age who has read and worked with Latin or Roman type for three months is in advance of a child who has read the Gothic type for two years. The size of the short letters, such as "m" or "n," should not be less than 1·5mm. and the interspaces between two words should be somewhat greater, 2mm. or 2·5mm. It is considered that letters smaller than this are injurious. The leader of the *Times* has a height of short letters of this size, and that is a very legible print to the ordinary eye at a distance of from twelve to fifteen inches. A much smaller type can be seen. Weber found that print, the small letters of which were only 0·7 mm. high, could be seen at 35 cm., at which distance the angle of convergence is very small, not exceeding 11° 21′, but that it could only be read with difficulty. With good print, and under favourable conditions, Weber found that 1,464 letters could be read in a minute with a loud voice, and in a low voice 1,900 in the same space of time. Hence, in one second 24 with a loud and 31 in a low voice. The perception of a letter requires 0·0316″, and its expression 0·0409″. Many journals have type the short letters of which have a height of 1 mm. or less. The thickness of the letters is about 1-4th mm., or 1-100th of an inch as a rule, and certainly not be less than this in school books. The little tranverse line at the top and bottom of many letters is of importance in obviating the effects of irradiation. The form of the letters has been particularly studied by Javal. The length of the lines is not without its effect. A very short line involves waste of power in the movements of the eye, and it is to be re-

* A centimètre is ·39 of an English inch.

Snelgrove's Governor Gas Burners.—Save quarter to half the gas bill. 15s. per dozen. Samples 18 stamps. Lists free.—60, Queen Victoria-street, E.C.; and of all Ironmongers.—[Advt.]

Murdock's Liquid Food. — Extract from the *Lancet.* — This American preparation is described as "an extract of beef, mutton, and fruits, containing corpuscles, and 12½ per cent. of soluble albumen." The solution gives the blood spectrum very strongly, and contains so much albumen as to become almost solid with dilute nitric acid. Of course it is an exceedingly powerful and easily digestible form of food. It is calculated to be of the utmost use in medical practice. Among other applications, the use of the liquid food as an enema will strike every one.—Van Abbott, Infant, Invalid, and Diabetic Food and Mineral Water Warehouse, 5, Princes-street, Cavendish-square, London, W.; American A B C cereals and foods generally. Depôt for Brand's (May Fair) Meat Preparations.—[Advt.]

gretted that we do not read the lines alternately backwards and forwards. On the other hand, a long line like the quartos and folios of old times not only fatigues the eye, but renders it easy to mistake the next line in the return movement. The length of line of the *Times*' leader is 2·75 mm. I take Justin McCarthy's "History of Our Own Times" as a good specimen of modern type and printing, and with it the School Primer and the Fifth and Chambers's Reader may be compared. In the Virgil of Pickering's diamond edition there are thirty-two letters to the inch. In the Walton's Lives about thirty. In the Iliad twenty-eight Greek letters. In Wordsworth's poems, Kent's small edition, there are about twenty letters to the inch.

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

HEALTH HELPS FOR THE PEOPLE.

The following are the draft suggestions for the formation of sanitary aid branches under the auspices of the National Health Society of London. The scheme may be commended to the notice of every town and city:—

"The object of forming sanitary aid branches of the National Health Society is to prevent the spread of the various infectious diseases, especially small-pox, scarlet fever (or scarlatina), diphtheria, measles, and typhoid fever. The work lies chiefly among the poorer classes; the occurrence of cases of infectious diseases must be ascertained, and, when found, assistance must be rendered by advice, and by material aid. A sanitary aid branch should also endeavour by every means to diffuse a knowledge of the laws of health, and of the proper methods of preventing the spread of infectious diseases.

"The medical officer of health for the district is the officer, legally required and qualified, to inquire into the causes and circumstances of an outbreak of infectious disease, and is empowered to do all that may be possible to prevent the spread of the disease. He is assisted in this duty by sanitary inspectors, who act under his directions. When a proposal to establish a sanitary aid branch is under consideration, an endeavour ought first to be made to enlist the co-operation and support of the medical officer of health of the district, and the first duty of a branch is, by teaching and by help, to persuade the parents or relatives of the sick to fulfil the orders and desires of the officer. The approval and help of the medical practitioners practising in the district ought to be sought, as well as the general co-operation of the dispensary, infirmary, or hospital of the neighbourhood, should there be one in existence; the house surgeon or resident medical officers of such institutions generally become aware of cases of illness at an early date, and they and the branch may be mutually helpful.

"The branch ought, as far as possible, to act in co-operation with, and obtain the assistance of, any organisations already in existence in the neighbourhood for aiding the sick; indeed, where there is a local institution for nursing the sick poor, the work of a sanitary aid branch may, to a large extent, profitably be carried out through or by it, or at least in intimate co-operation with it. An endeavour ought to be made to obtain the co-operation of the authorities of the schools, and to induce them to supply weekly returns of all absentees, stating whether the cause of the absence is known. In districts where there are factories, the co-operation of the owners and managers ought to be obtained. The support of the clergy of the district, of all denominations, ought to be enlisted; "district visitors" may be made valuable auxiliaries, especially for obtaining information.

"It is desirable to provide a lady manager, or other responsible head, practically acquainted with the work, and accessible at all times.

"One or more sanitary visitors must be provided. A sanitary visitor must be a woman, able to teach the best methods of using disinfectants for clothes, bedding, and rooms, able to advise on the nursing of the sick, and ready to co-operate with the medical attendant and the sanitary officers. A house must be provided as a residence for the sanitary visitors, and an office for the lady manager.

"The desirability of providing in this house, or in some other house (1) rooms for the reception of families during the time that their own habitation is being disinfected (about two days); (2) a room or rooms for lodging adult working members of the family—especially young girls in domestic employment—who would lose their work if compelled to live in an infected house; and (3) a room or rooms for convalescents; must be determined by the circumstances of the district and of the branch. No one of these classes of rooms is necessary to the success of the branch, but it is very much safer and better to have, at least, 1. When it has been ascertained that children have been absent from school, some fit person, either one of the sanitary visitors, or a lady interested in the undertaking, ought to visit the family and report to the branch whether fever be present or no.

"The poorer classes being apt to desire to conceal the occurrence of infectious disease in their families, owing to a fear that the general knowledge of such occurrence may interfere with employment, or may entail expense and inconvenience in carrying out the directions of the sanitary inspectors, it will be the object of a sanitary aid branch to encourage the early declaration to it of infectious disease, by the offer of assistance during the illness. Wherever possible, the best course is to have the sick person removed to a fever hospital. If this is done, the branch should superintend, through its sanitary visitor, the thorough disinfection of the room, bedding, and clothes of the patient, as well as the clothes of the persons who have nursed the patient, and will supply the disinfectants. The cost of the disinfection may be defrayed in whole, or in part, by the branch, or the help of the sanitary inspectors may probably be obtained in such a case, without causing any loss or inconvenience to the patient's family. In some districts medical officers of health may be able to supply disinfectants free of cost to the branch.

"Where the patient cannot be removed, the branch should superintend the nursing of the patient, and direct precautions against the spread of the disease. This object may best be carried out by keeping the patient and attendant in a separate room, by providing lodgings for the adult working members of the family elsewhere, by obtaining the necessary disinfectants, and by affording such additional aid in the way of assisting in domestic duties, or supplying to the patient suitable food, as may appear proper in the circumstances of each individual case; such aid to be given only where the rules laid down by the branch are faithfully carried out. After a proper period—seven or eight weeks in the case of scarlet fever—the branch should undertake the disinfection of rooms, bedding, clothing, &c.

"The cost of working a sanitary aid branch would probably amount to about £250 or £300 per annum; but this must depend greatly on the rent of the necessary premises (see above), and on the size of the district."

Recreation and Health

"Health is the vital principle of bliss,
And Exercise of health."—*Thomson.*

PHYSICAL EXERCISE.

By C. W. Cathcart, M.B., F.R.C.S.

(*Lecturer on Anatomy in the Edinburgh Medical School.*)

IV.—FOOTBALL (*concluded*).

Of the two games, the Rugby form requires more strength in shoulders and arms, as well as in legs and back, while the Association requires more speed and activity, and greater neatness in managing the ball with the feet. The latter game has become extremely popular among the working-classes of Scotland and the North of England, and has spread with surprising rapidity within the last ten or twelve years. It is, perhaps, better suited to these players, since they do not so much require exercise of their upper limbs as of their lower ones, and since the rules, being comparatively simple, are more quickly picked up by lads who generally only begin to play after they have grown up. If, as is said, the accidents are less in the Association game, this is another reason for those taking to it, to whom a short time off work is a serious inroad into the means of livelihood. It is certainly a matter for congratulation that any game should have been found which would have attracted working lads to healthy open-air exercise on Saturday afternoons, and which would have drawn out their friends in such numbers to watch them, as the Association game has done.

In many of the English public schools this form of football has always existed, and still holds its place, so that Association clubs in England are largely fed by the old boys after leaving their school; but in Scotland the Rugby or Rugby Union game is mostly played at the schools, so that the chief football clubs in the upper classes follow in the same line.

As an exercise, the Rugby seems the better, since it develops the upper part of the body as well as the lower, and, as a moral training, it seems also preferable, in offering more scope for manly forbearance and good temper in its hearty rough-and-tumble struggles.

The game might be improved, however, in a way calculated to lessen the risks of strain and crush, without taking away the good features, by lessening the tight scrimmages as much as possible, and by encouraging a greater amount of "dribbling." One way to do this would be to allow running with the ball only from a "free catch" (*i.e.*, direct from the opponent's foot, before the ball has touched the ground), or on the first or second bound. The "forwards," too, should be enjoined not to avail themselves of even these privileges on all occasions, but to aim rather at concerted rushes in loose-scrimmage order; a plan of attack which is more effective than individual runs, even with good "chucking," while it is much more interesting to spectators. The objections to the tight scrimmages are that a very great deal of exertion is required with very little result; that any player getting on the ground might be seriously twisted or bruised by the wedged mass of his opponents surging over him, and that it forms a meaningless and uninteresting spectacle to lookers on.

It will, of course, be taken for granted that in either form of the game there should be no intentional injury to any player of the other side. If opportunities of maliciously hurting or disabling an opponent are to be taken advantage of, they certainly will be found in football. Let us trust, however, that no unnecessary obstacles to the game will be raised in this manner, and that one of the noblest of manly exercises will not be sullied by any such conduct.

As to which form of the game is the more dangerous it is really difficult to decide. A certain proportion of accidents do happen with either, though fortunately these are not generally serious. After some careful inquiry, it appears, as might have been expected, that accidents are much less numerous in schools than among the clubs of lads and young men who have grown up. But even these might be lessened if none played but those who were in fairly good condition, if light scrimmages in the Rugby game were lessened, and if all unnecessary violence were uniformly deprecated.

Now that the population of large towns is so quickly increasing, it becomes every day more important that the authorities should provide healthy recreation-grounds for the summer and winter sports of their younger inhabitants. These grounds have only to be thrown open, to ensure a free use of them on spare afternoons, with much benefit to the players and advantage to their friends, who will thus be attracted to the open air from less healthful resorts and less desirable pursuits.

We have dwelt thus somewhat longer on football because it is one of the most universally-played winter games, and because there really was material for discussion. In some particulars, and with suitable modifications, much that has been said might apply to hockey and la crosse, which are also winter games, but less extensively played.

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, littl care."—*Sir Philip Sidney.*

Workmen's Homes in London and Paris.—In an article in the *Times* on "The Dwellings of Parisian Workmen," in which the condition of the *ouvrier* in Paris is contrasted with that of the artisan in London, it is pointed out that though the population of Paris is not so large nor so rapidly increasing as that of London; nevertheless the two millions of Paris are crowded into a narrower space than that occupied by any similar number of Londoners. In the matter of parks and gardens, the Londoner is much better off than the Parisian. If the Parisian wants to stretch himself on the grass, he must go four or five miles from the heart of the city. Additional open space and a better class of dwellings will soon be provided for the poor in London, by broad avenues to be cut through slums, and by the building of tall houses on sites at present covered with low buildings. But in Paris every acre on which tall houses can be built has already been utilised.

Dr. Nichols' Penny Vegetarian Cookery-Book.—Every household should possess this marvel of cheapness. Free for 1½d.—Nichols & Co., 23, Oxford-street, London, W.—[Advt.]

Sanitary Inspections.—Fee for Survey and Report, in London, 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

West Green, Tottenham, West Green College for Ladies.—The Principal, Miss Bristed, A.C.P., receives young ladies to board and educate in a thorough English education. Good schoolroom, furnished with all improvements in lighting and ventilation. Separate Swedish desks. Scientific gymnastic classes held twice a week. The pupils' studies are varied by frequent change of occupation and physical exercise. Miss Bristed's pupils have been very successful in the local University examinations. Good garden and tennis court. Prospectus on application.—[Advt.]

Moreover, the London workman can live outside London, and come in daily by train. In Paris, the *octroi* is the great bar to extramural residence. Nearly every article of food entering Paris has to pay duty, so that people who pass the *octroi* with parcels have to exhibit their contents; and under such circumstances, trains full of workmen carrying their baskets of tools and dinners could not pass rapidly to their destinations as they do in London. There is, again, no inducement in cheapness of rent to live outside the city. The article shows, moreover, that of the children born to the working-classes in Paris, more than fifty per cent. die in the baby-farmers' hands before they reach their second year. It is also shown how the progressive extinction of home-life among the Parisian workmen has had the most demoralising results.—*British Medical Journal.*

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Dr. Pettenkoffer on Cholera.—Finally, every one can do much for himself and his family when an outbreak does take place. To be the victim of an attack of cholera it does not suffice that the cholera infection should be prepared, and that there should be the required tropical and seasonal tendency, but there must also be the individual susceptibility. In one house there may be twenty or more persons exposed to the same infecting influence, but, as a rule, only one or two will take cholera. Experience has shown that the greatest influence is exercised by age, robustness, food, bodily and mental strain, clothing, cleanliness, &c. I cannot go further into individual dispositions at present, and must refer to a pamphlet on the subject which I published some ten years ago—"What we may do against the Cholera." One most important point is to avoid everything that tends to produce looseness of the bowels, the causes of which may vary with the individual. Nothing is so effectual in checking a cholera epidemic as careful attention to the state of the bowels, and medical assistance should be obtained as soon as the slightest premonitory diarrhœa shows itself. It is a great mistake to say that medical assistance is useless, and that because 50 per cent. of the cases on an average die, it is immaterial what we do. This is only true for cases which take on immediately the extreme algid form, in which case little can be done; but against the beginnings of the disease, against diarrhœa and cholerine, medical treatment is not powerless, but, on the contrary, most promising. Medical treatment of premonitory diarrhœa is one of the most important prophylactic measures against the development of the severe and dangerous form of the disease. Our sanitary authority will doubtless provide for quick medical relief, for the most careful watch over the supplies of food, and for everything which previous experience has shown to be important and useful. We may also hope that the enlightenment of the people of Munich will lead them to support loyally the efforts of the authorities to meet successfully any invasion of the disease, which, however, we trust may still be far distant from us.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

A HOME SURGERY.

Putnam's "Handy Book" Series. Till the Doctor Comes, and How to Help Him. By George H. Hope, M.D. (New York: S. Putnam's Sons.)

Ambulance lectures and instruction in the art of rendering simple or first aid to the injured, are now thoroughly established as social institutions of high importance. The good work of the St. John's Ambulance Association in this country is being imitated in many quarters, and with satisfactory results. We have over and over again expressed the opinion that no public servant—policeman, railway guard, &c.—should be allowed to take duty without first undergoing instruction in ambulance. Only recently a case came under our notice—one of many—in which, had efficient aid been instantly rendered by the police in a case of drowning, the sufferer might probably have been restored. Hundreds of cases occur every year in which fatal results follow accidents, simply because no one knows "what to do" until the doctor can be summoned. Half-drowned persons are allowed to lapse into death, wounds are unstaunched, people allowed to choke, poisons to remain without antidotes—and all because the public are not trained—or rather will not trouble to educate themselves—in the simple elements of "saving knowledge." There is no reason why such knowledge should not be taught in our schools as supplementary to physiological instruction. No regrets can call back the life that has been lost; but our sorrow becomes trebled when the thought is pressed home that, with a little knowledge of ambulance work, we might have rendered timely aid to the suffering patient.

Dr. Hope is an English physician, and his work has been revised and adapted for American readers by a New York physician. This book is eminently sound in all its teaching, and deals with every topic likely to demand the attention of the public. The following quotation is eminently of practical nature:—

Bleeding from a Wound in an Arm or Leg, if severe, must be stopped by pressure. Make a pad of rag a good thickness, place this on the part, and bind a handkerchief or anything of that sort tightly round the limb. If that be not sufficient, slacken it a little, push a strong stick or a large fork under it, and twist it round; by this means you can get any amount of pressure. If the wound be in the wrist or arm, let it be held up over the head, or if in the leg let the person lie down, and support the foot on a chair. If you be by yourself in the fields, and get a severe cut with a scythe, or in any sudden emergency, such as a railway accident, use the remedy which has saved many a life on the field of battle,—take a handful of dry earth, put this on to the wound, and grasp it tightly, till you can have some assistance.

One of the most difficult situations in which to manage a wound is about the wrist or thick part of the thumb, particularly if it be deep. If this accident should occur when near a surgeon, let him attend to it directly, but if not, lose no time in dressing it yourself. Two people are required to do this properly. If you turn your hand with the palm upwards, and lay your finger on the wrist a little to the outer side, in a line with the thumb, you will feel the pulse beating; now let one person stand alongside the patient (not opposite to him) take hold of his arm with both hands, place one of his thumbs on this spot, but a little higher up the arm than the cut, and the other on the little finger side, and press firmly. While one is by this plan arresting the bleeding, let the other bring the edges of the wound together, place over it a thick layer of whiting or pipe-clay, or a large table-spoonful of flour, or if away from home common clay, then a pad of lint or rag of any description, and secure this in its place with a bandage or handkerchief, so put on as to press firmly on the spot. The thumbs may now be removed, but the hand must not be allowed to hang down. If the blood should continue to force its way through, you must, in addition to these dressings, lay a small pad on the artery where you felt the pulse, and keep it in its place with a bandage, or, what is very much better, a strong elastic band. If these means are not sufficient, you must obtain the assistance of a surgeon at once.

It is very desirable that every one, even young people, should understand that in all cases of severe bleeding, be the wound ever so small, the only thing which can be safely depended upon is *pressure*. Three youths lately were walking through some fields, when one of them, who had an open knife in his hand, fell, and the blade was forced into his thigh. His companions, terrified at the sight of the blood, ran off to procure assistance, while the unfortunate sufferer did his best by holding his pocket-handkerchief to the wound. Long before they could return his chance of life was gone. Here was a fine healthy young man cut off suddenly, who might

have been saved by the most simple contrivance. Even situated as they were in the open fields, a cork, a stone, a potatoe cut in half, a handful of earth, a bit of rag, or a bunch of grass rolled up into a ball, and put into a handkerchief or necktie, or a stocking, and tied very tightly round the limb so as to press upon the wound, would have arrested the bleeding, or at any rate have lessened it, till it could have been properly secured.

This, then, is a good rule, and may serve as a general one. In case of severe bleeding, press your finger on or into the bleeding place and keep it there till you can have assistance.

The description of the treatment of the apparently drowned is also clearly given :—

Send immediately for medical assistance, blankets, and dry clothing, but proceed to treat the patient instantly, securing as much fresh air as possible.

The points to be aimed at are—first, and immediately the restoration of breathing; and secondly, after breathing is restored, the promotion of warmth and circulation. The efforts to restore life must be persevered in until the arrival of medical assistance, or until the pulse and breathing have ceased for at least an hour.

TREATMENT TO RESTORE NATURAL BREATHING.

To Maintain a Free Entrance of Air into the Windpipe.—Cleanse the mouth and nostrils. This is best done by placing the patient gently face downward for a moment with one of his wrists under his forehead. This allows any fluids to escape from the mouth and throat and the tongue to fall forward; draw forth the patient's tongue, and keep it forward; an elastic band over the tongue and under the chin will answer this purpose. Remove all tight clothing from about the neck and chest.

To Adjust the Patient's Position.—Place the patient on his back, with the head and shoulders raised, and supported on a small, firm cushion, such as a folded coat.

To Imitate the Movements of Breathing.—Grasp the patient's arms just above the elbows, and draw the arms gently and steadily upwards, until they meet above the head (this is for the purpose of drawing air into the lungs); and keep the arms in that position for two seconds. Then turn down the patient's arms, and press them gently and firmly for two seconds against the sides of the chest (this is with the object of pressing air out of the lungs; pressure on the breast-bone will aid this).

Repeat these measures alternately, deliberately, and perseveringly, fifteen times in a minute, until a spontaneous effort to breathe is perceived, immediately upon which cease to imitate the movements of breathing, and proceed to induce circulation and warmth.

Should a warm bath be procurable, the body may be placed in it up to the neck, continuing to imitate the movements of breathing. Raise the body in twenty seconds in a sitting position, and dash cold water against the chest and face, and pass ammonia under the nose. The patient should not be kept in the warm bath longer than five or six minutes.

To Excite Inspiration.—During the employment of the above method excite the nostrils with snuff or smelling-salts, or tickle the throat with a feather. Rub the chest and face briskly, and dash cold and hot water alternately on them.

TREATMENT AFTER NATURAL BREATHING HAS BEEN RESTORED.

To Induce Circulation and Warmth.—Wrap the patient in dry blankets and commence rubbing the limbs upwards, firmly and energetically. The friction must be continued under the blankets or over the dry clothing.

Promote the warmth of the body by the application of hot flannels, bottles, or bladders of hot water, heated bricks, &c., to the pit of the stomach, the armpits, between the thighs, and to the soles of the feet. Warm clothing may generally be obtained from bystanders.

On the restoration of life, when the power of swallowing has returned, a teaspoonful of warm water, small quantities of wine, warm brandy and water, or coffee, should be given. The patient should be kept in bed, and a disposition to sleep encouraged. During reaction, large mustard plasters to the chest and below the shoulders will greatly relieve the distressed breathing. Great care is requisite to maintain the restored vital action, and at the same time to prevent undue excitement. Persevere for at least three or four hours.

Do not be discouraged if you do not produce any good effect at once, but persevere. There have been cases of recovery after suspended animation of *five hours*. You will feel it a glorious reward when you see the dead restored to life through your exertions. [The same plan may be used, except removing the clothes, when a person is suffocated with foul air of any description. In this case, too, cold water should be freely applied to the head. And here I would give you a word of caution. Before entering any old well, sewer, or other place where you may suspect the air to be bad, let down a lighted candle into it. If this will not burn, it is not fit for you to enter. Never use charcoal for warming a room when any one is in it. The gas given off when it is burning is so deadly that I have seen a husband and wife suffocated in bed, though the charcoal was placed on the hearth.]

Messrs. Putnam are to be heartily congratulated on having given such a valuable manual to the great public on the other side of the Atlantic.

THE INSANE AND THEIR TREATMENT.

Insanity: Its Causes, Prevention, and Treatment. By WILLIAM HARRIS, M.R.C.P., F.R.C.S.E., &c., Resident Superintendent Physician of the Norwich City Old and New Asylum. (London: Wyman & Sons.)

OF late years, more rational views on the subject of insanity have prevailed amongst the public, and Dr. Harris's book will aid the work of instruction in the nature and causes of those brain-troubles, which only too frequently mar the existence of persons in all ranks and classes of society. It is highly desirable that such knowledge should be widely diffused, since the prevention of insanity, as the author shows, is largely a matter with which the public, and not the medical profession, have to deal. Dr. Harris tells us that "We have no proof that hard study alone can induce insanity, and we have still fewer proofs that civilisation is a cause of mental disorder." He maintains that "there are more male than female patients admitted into private asylums, whilst amongst the poorer classes the proportion is reversed." As regards age, the liability to insanity increases with years until about the age of 30; and between 30 and 40 "is the time of life which produces the greatest number of lunatics." Dr. Harris adds the all-important remark, that "early diagnosis and prompt treatment are everything." The very best chance of recovery lies in early attention by the physician to each case. This volume will well repay perusal as an interesting account of maladies which assume a high importance in the lists of the troubles that afflict mankind.

Sanitary Appliances, Etc.

THE GRISCOM MOTOR AND AUTOMATIC BATTERY.

THIS apparatus consists of a small electric motor, constructed on the "double induction" principle, by which a remarkable increase of power, weight for weight, over other small electric motors is obtained. The motor consists of a "Siemens'" armature, revolving close to and inside the poles of a pair of magnets, bent in the shape of a ring, and wound with copper wire. The size of the motor is about five inches in length by three in breadth, and the weight only 2½ lb. To drive an electro-motor some source of current must be used, such as batteries, accumulators, dynamo-machines, &c. The Electro-Dynamic Company, of Philadelphia and London, whose offices are at Archway House, Bush-lane, E.C., have constructed a battery specially adapted to the motor, and calculated in every way to be used with satisfaction by workers of the sewing-machine, for it is to supplant the treadle, whose use is so detrimental to the health of women, that the Griscom Motor is being now actively introduced in this country. The "Automatic" Battery is made up of six cells, with a board suspended over them, to which the zinc and carbon plates are attached, and, by means of a lever and pedal, can be lowered into the fluid which fills the jars. More immersion of the plates produces more power, and as this can be done by a gentle pressure of the foot, the most exact regulation of the speed of the machine is obtained. The battery is so constructed that a spring automatically raises the plates out of the liquid when not in use, so that all waste

is avoided. The battery can then be left any length of time without deterioration. The price of the complete apparatus to drive a sewing-machine is £6, which includes a handsomely nickel-plated motor, a battery in an elegant ebonised case, with lock and handles, and a bracket, with all necessary wires and connections, and full instructions for working. Any sewing-machine can be fitted with a Griscom Motor in ten minutes. Among numerous

The Motor Applied to a Sewing-machine.

other applications of the Griscom Motor which have received practical endorsement from the public are fans, ventilators, lathes, model boats, fret-saws, dental drills and lathes, &c.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," 74-76, *Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "The Publisher," *at the same address.*

Contributors are requested to send stamps for the return of the MSS. *in event of non-acceptance. Every care will be taken to ensure the safety of* MSS., *but the* Editor *and* Publishers *cannot hold themselves responsible for accidental loss.*

Correspondents are requested to write on one side of the paper only. The Editor *disclaims responsibility for the opinions expressed by Correspondents.*

LETTERS TO THE EDITOR.

THE AMBULANCE CLASS AT THE BIRKBECK INSTITUTION.

Sir,—The remarks in your issue of the 9th November with respect to Dr. Cantlie's employment of diagrams in preference to a demonstration on the true skeleton, in the Ambulance Class at the Birkbeck Institution, are very just and pointed.

Permit me, however, as the *founder of*, and instructor to, that class, to say that until this session (when I was obliged to resign my charge in consequence of increased provincial work in popular lecturing), the demonstrations were thoroughly practical, and every advantage *was taken of the skeleton*, which is *in the possession of the Institute.*

I can only say that during my four years' charge no one fainted, either as a volunteer or not, nor was there at any time any feeling expressed but that of intense interest in the physiological and anatomical portions of instruction.

I would mention this merely on behalf of the students (male and female) of this most important institution, who, I am sure, Dr. Cantlie will find to be devoid of "morbid silliness," and truly anxious to learn as thoroughly as possible how to afford help to their suffering fellows.

Very many of my class on "Health" have eagerly availed themselves of the privilege of visiting the museum of the College of Surgeons and other anatomical collections, where I have had the pleasure of personally explaining the objects of importance.—Faithfully yours, Joseph J. Pope.

Late Lecturer on Hygiene and Instructor to Ambulance Class at the Birkbeck Institution. Special Lecturer to National Health Society, London.

ELECTRO-DENTISTRY.

Sir,—In your issue of November 2, my notice has been drawn to some remarks by Mr. Boyd Wallis, on my invention of electrical appliances for the mouth, in conjunction with or without artificial teeth.

It appears to me rather strange, if this gentleman has had the experience he states, that he did not bring it before the notice of the profession before.

The plates I have constructed (which are entirely original) are so arranged that a continuous but gentle current is generated, the plate being of such dimension as to not inconvenience the wearer, which is of paramount importance in the adaptation of a base for artificial teeth.

Mr. Boyd Wallis goes on to say, "I may have some opportunities of testing the electro-motive force and strength of current of this minute battery whilst in the mouth," &c., &c.

In reply I may remark that I have already tested the electro-motive force of my Electric dentures, and find it to be in Volts 0·20 with only one pair of elements; this, of course, can be greatly increased when two or more pairs are used.—Yours, sincerely,

J. J. Wedgwood, M.D., &c., &c.

QUERIES AND ANSWERS.

[We would direct the attention of our correspondents to the fact that, owing to the necessity for sending Health to press early in the week, answers to queries cannot, as a rule, appear in the succeeding number of the journal. Every effort is made to secure punctuality in the replies, but we must ask the occasional indulgence of our readers, owing to the large amount of correspondence, which requires assortment and reply.

We must also request correspondents who write enclosing stamps for copies of Health, to address their inquiries to the Publisher, *and not to the Editor.*]

[Correspondents will please note that Queries addressed on Post-cards are consigned to our waste-paper basket. If information is worth having, it is at least worth a letter.]

GENERAL.

Fido.—Norman's "Insect Destroyer" should be tried. It will not harm the dog.

A Medical Student.—Thanks for your note. If the symptoms were imperfectly and erroneously described (as they must have been, if your account be correct) no surety could be given by you or by any other person for correct treatment. If you will peruse the replies, you will see they deal largely with personal hygiene, rather than with prescribing. On the argument used, every book of family medical advice should as well be burnt. The case you name was correctly enough treated as far as the dyspeptic symptoms were concerned.

Inquirer.—See description of "Electric Motor" in present number.

Salve.—We can send you the name of a medical specialist in London who makes such cases a study, if you send a stamped-addressed envelope.

B. George.—Try Messrs. Churchill.

A Dyspeptic.—Dr. Gill's book on "Indigestion" is published by Messrs. Churchill, New Burlington-street, London, W., and costs 4s. 6d.

M. H. Norwich.—See reply to "Dyspeptic," above.

Nelly.—See reply to "Dyspeptic," above.

Rivington.—1. Pronounced "Mik-ro-kŏkki." 2. "Poupart's ligament" is situated in the groin.

G. Mays.—1. There is no objection to the use of quilts; on the contrary, as expressed in our columns, their lightness and warmth are highly to be commended. All objections are groundless entirely. 2. Send the thermometer to Mr. Dollond, for an opinion. The "index" is a detached piece of mercury, which is pushed up by the ascending column of that fluid, and *remains* to mark the temperature when the mercury has withdrawn into the bulb. 3. The "Breakfast Cereals" can be purchased of Mr. B. Lampe, 44, Great Tower-street, E.C. 4. You probably refer to our "Hair" papers, contained in the early monthly parts of Health.

SANITARY.

B. G.—The Sherringham is preferable. Have you seen Tobin's tubes tried?

A. Coxwell.—Why not give the "wash out" a fair trial. A cistern "waste preventer" should be also used.

Earnest.—A common symptom of bad drainage. See that you have no leaky drains below the basement.

Antique.—In the fourteenth century. Read Hecker's "Epidemics of the Middle Ages" (Sydenham Society).

A. Oswald.—Yes; Parkes' "Hygiene" is a classic work. See that you get the last edition.

E. B. A.—No need to try the second. The first is quite suitable.

MEDICAL.

D. R. Jones.—After scarlet fever the drum of the ear is liable to be perforated, and in your case the presence of the discharge shows this is probably the case. Such cases should be seen by a good aural surgeon, for by various methods they can (unless too far gone) be cured, and hearing restored, either by the natural or by an artificial drum. There is the greater need for such treatment, seeing that cold in the affected ear is liable to cause further mischief. See a good aural surgeon at a hospital, if you are unable to afford the fees. 2. The system is a good one.

F. G.—Your questions are a little too numerous for one communication. 1. Lemon juice is digested and absorbed like every other fluid. In small quantities it is agreeable and healthy as a beverage, well diluted. May be taken simply as an ordinary drink. Acts as an anti-scorbutic and blood-purifier. 2. Cannot say; depends on individual conditions and constitution; good food is certainly indicated, and especially fats and sugars. 3. Give it up if reaction is not sufficient. A cold bath in winter is very risky, without good reaction. A cup of warm tea might assist reaction after the bath. 4. Try tepid water, or cold with the chill off. 5. No use before the bath.

Gardener.—The absence of pain and the transitory nature of the swellings are against any "malignant" idea. We should feel inclined to advise you to persevere meanwhile with your treatment. Your previous history should make you very careful of tampering with any medicines other than those you are taking. Rest after food should be strictly observed. We sympathise heartily with you in all your troubles. Let us hear again about the "swellings." Give up all vegetables for a time. The change from the north should have done you good.

Erne.—You should read our directions to correspondents, and avoid impatience. Your general health must be weak. For the hair-troubles, rub in a little Macassar Oil morning and night, and use a soft brush. Write again if not improved.

Ivy.—Your case is one for careful attention to the general health. See to clothing, generous food, and plenty of rest and sleep. Ten grains bromide of potass taken in water on going to bed every other night, for a few nights, should be tried. You are evidently constitutionally nervous.

Thompson.—Try the following lime pills for the pimples:—Sulphide of lime, two grains; sugar of milk, forty grains. Twenty pills to be made and one to be taken every three hours.

Scalp.—Try the effect of a lotion composed of one drachm of bicarbonate of soda to one and a-half ounces of glycerine. To be applied night and morning; and let us hear if not cured.

An American.—No; typhoid germs are microscopic particles, difficult of detection even by professed microscopists, and at present somewhat indefinite even in nature. Boil the milk thoroughly. Yes; no objection to putting a little Swiss milk (first diluted with water) in the child's food.

M. Sanderson.—Thanks for your letter. Glad to have been of service.

Enquirer.—Try the effect of eating one or two of Bragg's Charcoal Biscuits after food. Avoid suppers, and take a little "Friedrichshall" water or "Æsculap" in the morning for a short time.

Espérance.—Certainly a change would do you no harm; but your ailment is more of mental than physical kind. Try to "settle down;" and you might take a teaspoonful of Fellow's "Syrup of the Hypophosphites" in a wineglassful of water, thrice daily before meals for a time. This is a good nerve-tonic.

E. J. J.—See advice to "Espérance" above. Are you constitutionally nervous? See also to your general health.

Zebedee.—1. Strict attention to general health, and the use of a constitutional remedy such as cod-liver oil, to which syrup of iodide of iron has been added. 2. Cold sponging, if it can be borne. 3. Warm clothing. 4. Inhalations of creosote, or of friars' balsam added to hot water, and the vapour to be inhaled. Add a few drops of either fluid to a pint of hot water and inhale, and avoid cold thereafter.

J. Lucas.—1. Try a little Morson's "Pepsine" along with the food for a time. 2. No; not when properly cooked. 3. Depends on quantity of water and state of stomach. Large quantities of water drunk along with food are prejudicial to digestion. 4. Occasionally a glass or two of good claret diluted with water is an aid to digestion. 5. Attention to all details of health—from pure air to state of the stomach. 6. No; certainly not injurious at that rate, which is extremely moderate. A fairly robust man should certainly not suffer, but be more healthy from such a practice.

Hope.—By your own account you are a healthy man. Your symptoms are exaggerated by a nervous anxiety, and by the quack accounts you have read. See and follow advice to "Carmen" and "W. L. T. B.," in No. 31 Health, and above all be cheerful, and know that you suffer from no disease.

Perplexed One.—We fear not. The use of iodine is simply absurd in such a case. You will only irritate your skin to no purpose. Read our articles on "How to get Thin or Fat." These will be more to your purpose.

Ebor.—Nothing can be done, save the wearing of a well-fitting elastic stocking or bandage. Rest with your feet elevated, and sleep with your feet on a pillow. See also to the state of your bowels, and, above all, avoid constipation.

G.—Will please send stamped-addressed envelope for the address he wishes. We never mention practitioners by name in Health.

Antrim.—Your symptoms point to some irritation which only a careful examination by a physician can reveal. We should suspect the results of some inflammatory action. Your case is one in which, from its nature, we can hardly advise; but, if you wish it, we can send you the address (on receipt of a stamped envelope) of a trustworthy medical adviser in London.

Patience.—The disease you name is of very intractable nature. You might try the following lotion:—Liquor of the subacetate of lead, one drachm; glycerine, three drachms; water, to make up six ounces. Label, "For external use only," and apply as a lotion. Let us hear the result. Use Calvert's "Carbolic Soap" for washing, and see to your general health. A little cod-liver oil after food, all the winter, will do you good.

Harry Thawcross.—Very little, if anything, can be done to cure the results of a nervous temperament. We should simply advise you to see well to your general health. Whatever interferes with your health is sure to act on your special temperament as you describe.

Pressman.—1. We approve of the system. 2. If care be taken to avoid cold, it will do no harm, provided always heart and lungs are sound. 3. The best remedies of simple kind, are the strict avoidance of constipation by the use of a little "Æsculap" mineral water if required; attention to diet, and avoidance of all indigestible foods; the taking a little lime-water with the milk, with a charcoal biscuit or two after food, if acidity be present. Other more direct remedies should only be prescribed by the medical attendant. If the sickness is very frequent, consult him at once. There are preparations which can allay the sickness. Thanks for your good wishes.

Enquirer.—You have no need to fear anything. You are morbidly depressed by quack literature. You should know that you will, with care, recover your health, provided you learn to be cheerful and give up desponding. Sleep on a hard mattress; don't take fluids late at night; take nourishing foods; avoid stimulants; use cold sponging in the morning if you have sufficient reaction, and for a time take a teaspoonful of Fellows' "Syrup of the Hypophosphites" thrice daily in a wineglassful of water before meals.

P. J. G. C.—Eat Braggs' Charcoal Biscuits for the correction of your stomach troubles, and see advice to "Enquirer," above.

J. H. is informed that, as announced in our notices to Correspondents, inquiries addressed on Post Cards are consigned to the waste-paper basket. He is further informed that in our opinion, only a person of extreme stupidity could address inquiries to the "Publisher." The "Editor" is the person to whom all such inquiries (contained in a letter) should be addressed.

Senex.—Try the effect of the tonic recommended to "Enquirer," above, in conjunction with hot salt baths thrice a week, and let us hear the result. You will, of course, give up the opiate entirely in following this advice.

W. MARTIN.—A little of the oil should be rubbed in with the fingers well into the roots, night and morning. Write to Mr. Browning, 63, Strand, for his spectacle-measuring apparatus. This is a safe method of suiting the sight.

S. I. EVERTON.—The removal of scars is an impossibility under ordinary circumstances. In future, prevent the scars by having the boils opened carefully and treated by a surgeon. You might try what the application of Vaseline to the skin may do in the way of promoting the skin-growth.

S. H. H.—Try the following lotion:—Friars' balsam, one part; rose-water, 20 parts. Apply as a lotion to the face. Use internally the following:—Sulphide of calcium, 24 grains; sugar of milk, half an ounce; mix and keep in a well-stoppered bottle, and take five grains, or as much as will cover a sixpence, every four hours. Give up tea and all other stimulant liquors. The powders may effect a cure without the lotion, and should be tried first.

PAUL CAFFIÈRE.—In such a case as yours we should feel inclined to thoroughly examine into your general health. Such a disease is as often as not a symptom of lowness of constitution. Try the effect of cod-liver oil, and for the ringworm use the following:—Perchloride of mercury, four grains; rectified spirits of wine, four drachms; water to make up two ounces. Label "Poison. External use only," and rub into the affected parts night and morning.

H. C. GRATEFUL.—So long as the present symptons continue, dress the broken surface with glycerine of borax, attend strictly to cleanliness, rest as much as possible in every way, and take the following:—Iodide of potash, two drachms; infusion of calumba, six ounces. A dessert-spoonful thrice daily. Let us hear how you are in a week or two.

M. D.—You should give up the bath and try, experimentally, the effect. Take a dessert-spoonful of cod-liver oil thrice daily after food, or cod-liver oil emulsion, if that will suit you better. Let your diet be generous, and rest as much as possible. As you say you are in good health, you must rely on diet and rest.

CLAPHAM.—You suffer from chronic nasal catarrh, for which you will find a thorough change (say to the sea in the south) do you good. You must see to your general health. Take cod-liver oil, with syrup of iodide of iron added; and let your diet be generous. Clothe warmly; and as a local remedy try inhalations:—Twenty to thirty drops tincture of iodine may be placed in two pints of boiling water, and the vapour inhaled for five minutes morning and night.

DESPAIR.—Yours is decidedly a case for a careful examination by a consulting physician. You should not delay in obtaining such an opinion, as it may relieve your mind to know exactly the nature of your symptoms. We can send you the name of a London physician (on receipt of a stamped, addressed envelope), if desired. Your case requires thorough examination, and full and detailed directions for treatment.

PURLIN.—The numbers given are mere proportions; any druggist will compound you the lotion from these proportions. The "℞" before a prescription means "recipe"—"take" of such and such things. We do not know the composition of the "Restorer;" if it contains lead, you would get a yellow deposit on adding iodide of potass solution to it.

T. K.—Cleanliness, frequent change of underclothing, and the use of a saturated solution of boracic acid as a lotion for the odour. In such a case as yours, we should also feel inclined to order a tonic, such as that recommended to "Enquirer" in present number.

DESPONDENCY.—You are in a nervous condition, but the exact cause is difficult to discover. Generally it is safe to say that in such a case as yours, any derangement of the general health is certain to intensify natural nervousness. As a preliminary measure you should try the tonic recommended to "Enquirer" in present number, and let us hear how you are in a week or two.

J. F. J.—Your cold is at the bottom of your troubles, and any derangement of health is certain to bring back your complaint. Your only hope of getting rid of it quickly is in the full improvement of your health. Rest as much as possible, and clothe warmly; avoid exertion and all stimulants; and take ten drops of "*Fer Bravais*" thrice daily for a time. A weak injection of "Condy's Fluid" (1 to 20 water) may be used occasionally.

ANXIOUS.—We believe there is an institution for the cure of stammering at No. 9, Old Bond-street, London, W. Reading aloud, slowly and deliberately, or chanting your words, have been recommended as a cure.

NIL DESPERANDUM.—All your symptoms are of a nervous nature. Take the tonic recommended to "Enquirer" in present number of HEALTH, for a week or so, and note the result. You might take a little Morson's "Pepsine" with your food, and see carefully, in any case, to your digestion. If not bettered you should see a consulting physician, and have yourself thoroughly examined. Our opinion is, that your symptoms are those usually of nervousness, which rest and a more robust state of health will cure.

T. H.—Possibly lead paper would be blackened if sulphuretted hydrogen were present in quantity. But it is folly, at any cost, to remain in doubt where sewer-gas is suspected. Trace the drain connections and have the place inspected. Frighten the employer, justly enough, with a tale of typhoid fever as the result of defective drainage.

OMEGA.—See (and follow) advice to "Enquirer" in present number of HEALTH. If not better, write again.

CARLTON.—No; the spray is merely an application for the throat alone. There seems nothing wrong otherwise, from your account, and you are in good hands. Persevere with the treatment.

J. BECKLEY.—Your case is one we sympathise with; but we think you are decidedly inclined to be over-anxious. If you could get a month or two at the sea—say Yarmouth—you would benefit from the change. You are evidently constitutionally nervous, and require rest and freedom from worry more than medicine; but we should recommend you to try the tonic recommended to "Enquirer" in present number of HEALTH, and "be temperate in all things," and avoid all irritation and worry as far as possible.

W. KAYE.—The box battery you have bought is apparently an efficient enough electrical apparatus.

H. A. R.—Smoke less, and be careful as to diet. Take a little "Æsculap" water occasionally in the morning, and try cold sponging, if you have sufficient reaction. Give up all stimulants, and give abstinence a trial; and, above all, don't dabble in patent medicines. Your case is one simply for the wise regulation of diet. If not better, write again.

T. M. E.—A common case, but eminently curable. Read and follow the directions given to "Enquirer" in present number of HEALTH. You must also rest, and avoid overwork. You seem to have been most injudiciously "pushed" in your education. All your symptoms will disappear with care, and attention to the advice given.

KEZIA.—1. See to the state of the child's bowels. Irritation (by worms or otherwise) is often the cause of the symptoms you name. 2. Generous dietary at large, including plenty of sweet milk. 3. Not, if the throat is sound, and the smoking not excessive. 4. Any good druggist can compound a cod-oil emulsion.

ARTHUR.—Take a little "Æsculap" mineral water in the morning for a time, as a cure for your liver-trouble. The acne, &c., is only a symptom of poorness of blood, for which take 10 drops of "*Fer Bravais*" thrice daily in water. You must take moderate exercise, and have fresh air also. No drugs can cure you in the absence of pure air. Write again if not improved.

ROGATUS.—Ordinary generous diet; no stimulants. The treatment can only be carried out under the surveillance of a physician. It is an intricate matter.

W. A. D.—You are extremely foolish to take such a view of your case, and you are evidently inclined to be morbidly fanciful. See (and follow) advice in present number given to "Enquirer"; and know that a cheerful mind is more than half the battle. Glad to assist further, if need be.

T. H.—Try the effect of a lotion composed of bicarbonate of soda, one drachm, and glycerine, one and a half ounces. Bathe the part frequently with warm water, to which bicarbonate of soda has been added. If not relieved, write again.

CHAMPION.—Your teeth are at the root of your troubles, and no remedies can be of any avail until your teeth are seen to. Consult a dentist.

K. B.—The discharge from the ear can be remedied by proper means. You should have it seen to, and the medical man you name is well qualified to treat the complaint, being an ear-specialist. Such cases are eminently curable when treated by such a specialist.

A. GAUBERT.—1. Give up the bath, when depressed by cold. 2. Raise the bottom sash three or four inches, and fill up the interval by a block of wood, on which the bottom sash will thus rest. The fresh air comes in between the two sashes.

DANDRUFF.—Try sponging the head morning and night for a time with a strong solution of borax in water, and apply glycerine of borax at night. A little Macassar Oil may be rubbed in daily, after this treatment has been tried for a time.

H. J. W.—A residence at a hydropathic establishment for a week or two would, we think, benefit you, especially if you tried some of the water applications of the establishment. The pains, we think, are purely muscular, and such a form of treatment is well adapted for their cure. If this advice cannot be followed, please write again.

CHARLES.—We are inclined to think your present life, with so much travelling and exertion (at your age), is at the root of whatever nervous symptoms you exhibit. The cramps, &c., are all indications pointing to the same conclusion. You should try to arrange for more sedentary work, and for labour involving less travelling, &c. In our opinion, after a trial of our former advice, further medicine is useless in view of the over-work under which you suffer. For the "cramp," try an application of equal parts chloral and camphor, to be labelled "poison," and used as a liniment.

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This should be painted over the painful parts or gently rubbed in. Rest is, however, your sheet-anchor.

Hyperbola.—A common case, with which we have every sympathy. Above all, don't grow morbid; but follow advice to "Enquirer" in present No. of Health, and write again if not cured. Be patient and persevere.

A Sufferer (No. 1).—Try inhalations as recommended to "Maria Kempton," in No. 32 of Health, and see to general health.

H. E. S.—Take a mild purgative (*e.g.* "Æsculap" or "Friedrichshall") on alternate mornings. Let your diet be non-stimulating and vegetable in its nature for a time. Wash with tepid water and Pears' soap, and try the effect of a lotion made of 1 drachm bicarbonate of soda added to 1½ oz. of glycerine. The following pills may also be tried:—sulphide of calcium, 2 grains; sugar of milk, 40 grains; make into 20 pilules, one to be taken every three hours. If not better, write again.

J. Chard.—See replies to "Hyperbola" and "Enquirer," in present number. Be careful and follow the advice given. Glad to assist further, if need be.

Fanata.—Your case is one for a thorough examination by a physician. The "pulsation" you refer to may be a simple matter, but we should advise an examination.

Pedes.—Try the effect of painting the callosities with tincture of iodine daily till the skin is rendered tender. Apply pads of cotton between and under the toes, and moisten the parts with glycerine. See to your boots, and rest as much as possible, keeping the feet raised. Don't cut or pare the parts. Write again, if not cured.

Arsenic.—"Sciatica" is a complex disease as to its origin, and may arise from many and varied causes. Try the following as a first measure:—Iodide of potass, half a drachm; syrup of orange-peel, one ounce; water to make up eight ounces. Two tablespoonfuls to be taken thrice daily. A large blister applied on the back of the thigh, from hip to knee, often does good; and galvanism, or the interrupted current (obtained from a portable battery, to be had at any opticians, &c.), may also be tried. If not cured, write again.

Lex.—The irritation arose from your unwise and too vigorous applications. You were over-severe in your treatment. No evidence whatever of disease from your account. You may keep your mind easy, and apply a little pure Vaseline. Don't be nervous.

Ryan.—We know the work. The author is a quack. There is no

reliable evidence that any of his marvellous "cures" ever had consumption. It is very easy to call anything "consumption," and then to say you have "cured" it. Have no faith in the pretentious humbug.

C. LANGLEY.—The smooth, round, bare spot is a form of ringworm. See to your general health. Take a dessert-spoonful of cod-liver oil (with syrup of iodide of iron added) thrice daily after meals, and apply to the bare spot a lotion composed of pure carbolic acid two drachms, and glycerine one ounce. Label "For external use only."

WITHERS.—Yours is a case in which we think a physician should be consulted. You seem to suffer from one or two symptoms, the causes of which can only be definitely ascertained by an examination of your case.

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VERITAS.—Take the tonic recommended to "Enquirer" in present number of HEALTH. If not cured, write again. The cod-liver oil recommended to "C. Langley," above, might also be tried. The ear-trouble is probably due to an affection of the drum, which may give way to above treatment.

CHRIST CHURCH.—Try the effect of benzoated zinc ointment, smeared over the part, and then covered with a piece of soft rag. General health to be looked to.

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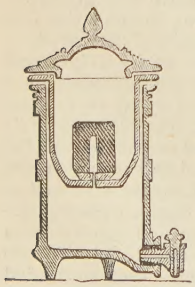

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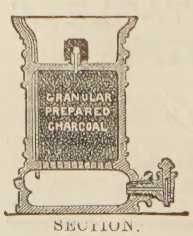

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